REMARKS UNDER 37 CFR § 1.111

Formal Matters

Claims 14-15 and 18-35 are pending after entry of the amendments set forth herein.

Claims 14-18 were examined. Claims 14, 15 and 18 were rejected. Claims 16 and 17 were allowed.

Applicants respectfully request reconsideration of the application in view of the amendments and remarks made herein.

No new matter has been added.

The Office Action

In the Official Action of July 2, 2004, claims 14 and 15 were rejected under 35 U.S.C. Section 102(b) as being anticipated by Bugge (U.S. Patent No. 5,025,779). The Examiner asserted that Bugge discloses a device as claimed including a first arm (frame portion connecting to blade 2), second arm (frame portion connecting to blade 1), a frame (6) connecting the first and second arms, a rib offsetting device (including member 9,10).

Applicants respectfully request reconsideration and withdrawal of this ground of rejection as being inappropriate. Bugge discloses a device comprising two plates 1 and 2 provided with hook-shaped members 3,4. The plates 1 and 2 are connected to each other via a frame structure 6 provided with adjusting means 7 for adjusting the distance between plates 1 and 2. A hinge 8 connects plate 1 to a lever arm 9. Lever arm 9 is further provided with an adjusting screw 10 to act upon the plate 1 for tilting it about the hinge 8.

Bugge fails to disclose or suggest a device having first and second arm members that each have a blade at the distal end thereof, or a mechanism that operably connects the first and second arms members such that operation of the mechanism to move the arm members away from one another also moves one of the rib engaging blades in an upward direction with respect to the other of the rib engaging blades. Rather, Bugge provides a completely standard mechanism for spreading the hooks apart from one another, wherein operation of adjusting means 7 causes nothing more than a spreading apart of the gram and thus the hook members in a planar movement. In order to lift one of the hooks relative to the

other, Bugge requires an independent, second adjustment means (screw 10) which, when torqued, drives plate 1 to pivot about the hinge 8 thereby lifting the hook member. This is clearly distinct from the presently claimed invention which drives both the spreading and the relative lifting by actuation of the same mechanism in a single operation.

Accordingly, for at least the above reasons, the Examiner is respectfully requested to reconsider and withdraw the rejection of claims 14 and 15 under 35 U.S.C. Section 102(b) as being anticipated by Bugge (U.S. Patent No. 5,025,779) as being clearly inappropriate.

Claim 18 was rejected under 35 U.S.C. Section 103 as being unpatentable over Bugge (U.S. Patent No. 5,025,779) in view of Coker (U.S. Patent No. 5,363,841). Coker was applied as teaching the use of a retractor having blades with fingers.

Coker does nothing to make up for the deficiencies of Bugge in meeting all of the limitations of claim 14. Accordingly, since claim 18 depends from claim 14, it is respectfully submitted that claim 18 is allowable over Bugge and Coker for at least the same reasons that claim 14 is allowable over Bugge, as described above.

Accordingly, for at least the above reasons, the Examiner is respectfully requested to reconsider and withdraw the rejection of claim 18 under 35 U.S.C. Section 103 as being unpatentable over Bugge (U.S. Patent No. 5,025,779) in view of Coker (U.S. Patent No. 5,363,841), as being clearly inappropriate.

It is further submitted that neither Bugge nor Coker nor any of the other art of record discloses or suggests the invention recited in new claims 19- 35. Claims 19 depends from claim 14 and, it is respectfully submitted, is allowable for at least the same reasons noted above with regard to claim 14. Additionally, claim 19 further recites that the arm member having the rib engaging blade attached thereto that is moved in an upward direction, is rotatably mounted with respect to the mechanism.

Claim 20 recites a device for spreading an incision that includes a base portion; a first arm member fixedly attached to the base portion and having a distal end portion extending away from the base portion, with the distal end portion having a first rib engaging blade; a second arm member movably mounted with respect to the base portion, wherein the second arm member has a second rib engaging blade; and a mechanism operable to drive the second arm member away from the first arm member and to drive the second rib engaging blade vertically with respect to the first rib engaging blade when the first and second rib engaging blades are engaged with ribs on opposite sides of the incision. As noted above, Bugge et al. fails to teach or disclose such a mechanism. Rather, Bugge provides a standard arrangement 6,7 for spreading apart opposite sides of a retractor. To this standard arrangement,

Bugge provides a hinge an plate adjustment mechanism 1,8,9,10 that is used to independently rotate the plate 1 about the hinge 8 to cause a relative lifting of the hook 3.

Claim 21 depends from claim 20, and further recites a support arm rotatably mounted with respect to the base portion, wherein the support arm is adapted to rest against the surface of a body of a patient during driving by the recited mechanism. Clearly neither Bugge, nor any of the art of record, suggests or discloses such a support arm.

Claim 22 depends from claim 21, and further recites that the support arm is fixed with respect to the second arm in one direction of rotation and rotates with the second arm with respect to the base portion during driving by the recited mechanism. These features are also clearly neither disclosed nor suggested by the art of record.

Claim 23 depends from claim 21, and further recites that the support arm ratchets with respect to the second arm. No such feature is disclosed or suggested by the art of record.

Claim 24 depends from claim 21, and further recites that the support arm comprises a sternal pad at a distal end thereof, a feature that is neither disclosed nor suggested by the art of record..

Claim 25 is a new independent claim directed to a retractor for opening the chest during surgery, that comprises first and second substantially opposed retractor blades adapted to engage opposite incision edges of a chest incision; first and second arms connecting said first and second retractor blades to a frame structure; and adjusting means associated with the frame for adjusting the relative distance between the first and second arms and for adjusting the relative height between the first and second retractor blades. Bugge et al. fails to disclose or suggest adjusting means associated with the frame structure that adjusts both the relative distance between first and second arms of a device as well as the relative height between first and second retractor blades. Rather, Bugge discloses a retractor having a first adjusting means associated wit a frame structure that operates in the conventional manner, i.e., to simply spread apart the frame structure along opposite directions in a plane. A second adjusting mechanism, which is not provided on the frame structure, but rather is threaded between a lever arm 9 and plate 1, operates to pivot plate 1 about hinge 8 to raise hook 3 relative to hook 4.

Claim 26 depends from claim 25, and further recites that the second arm is rotatably and translationally movable with respect to the frame, and wherein driving of the second arm by the adjusting means to increase the relative distance between the first and second arms also rotates the second arm with respect to the frame, thereby lifting the second retractor blade relative to the first retractor blade. As noted above, Bugge et al. fails to provide or suggest a second arm that is rotatable with respect to a frame, as Bugge et al. provides a conventional frame arrangement with fixed arms,

which is modified with an adjustment mechanism that pivots plate 1, but does not affect the arm. As further noted, Bugge et al. fails to disclose or suggest both spreading and lifting being accomplished by driving of a second arm by an adjustment means associated with the frame structure.

Claim 27 depends from claim 26, and further recites that the second retractor blade is attached to the second arm and rotates with the second arm during said lifting. As noted above, Bugge provide standard arms fixed to the frame structure of the device. The arms are incapable of rotating with respect to the frame structure. Rather, Bugge provides a separate mechanism for tilting a plate 1 in order to lift the hook 3.

Claim 28 depends from claim 26, and further recites a support arm rotatably coupled to the second arm. Clearly neither Bugge, nor any of the art of record, suggests or discloses such a support arm.

Claim 29 is an independent claim that recites a device for use in a surgical procedure for spreading an incision, that comprises a base portion; a first arm member fixedly attached to the base portion and having a distal end portion extending away from the base portion, wherein the distal end portion has a first rib engaging blade; a second arm member movably mounted with respect to the base portion, the second arm member having a second rib engaging blade; a support arm rotatably coupled to the second arm; and a mechanism operable to drive the second arm member away from the first arm member and to drive the second rib engaging blade vertically with respect to the first rib engaging blade when the first and second rib engaging blades are engaged with ribs on opposite sides of the incision. Clearly, neither Bugge nor any of the other art of record, whether taken alone or in any proper combination, discloses, suggests or renders obvious the present invention as defined by claim 29.

Claim 30 depends from claim 29, and further recites an offset positioning assembly that allows the support arm to rotate with respect to the second arm in one direction of rotation and prevents rotation of the support arm in an opposite direction of rotation. None of the art of record suggests such a support arm, let alone an offset positioning assembly as claimed.

Claim 31 depends from claim 30, and further recites that the offset positioning assembly comprises a pawl mounted in one of the support arm and the second arm, and a ratchet mounted in the other of the support arm and the second arm. None of the art of record discloses or suggests a support arm and offset assembly as claimed, much less a ratchet and pawl assembly that functions in the offset assembly.

Claim 32 is an independent claim that recites a device for use in a surgical procedure for spreading an incision, comprising: a base portion extending substantially horizontally; a first blade arm

fixedly attached to the base portion and extending outwardly and downwardly therefrom to a first distal end portion having a first rib engaging blade; a second blade arm rotatably and translationally mounted with respect to the base portion and extending downwardly therefrom to a second distal end portion having a second rib engaging blade; a support arm rotatably coupled to the second arm; and a mechanism operable to drive the second arm member away from the first arm member and to drive the second rib engaging blade vertically with respect to the first rib engaging blade when the first and second rib engaging blades are engaged with ribs on opposite sides of the incision.

Clearly, neither Bugge nor any of the other art of record, whether taken alone or in any proper combination, discloses, suggests or renders obvious the present invention as defined by claim 32.

Claim 33 is an independent claim that recites a retractor for opening the chest during surgery, comprising: first and second substantially opposed retractor blades adapted to engage opposite incision edges of a chest incision; first and second arms connecting said first and second retractor blades to a frame structure; a support arm adjustably mounted to said first arm, said support arm being adjustable for contact with a patient's body prior to spreading the incision edges; first adjusting means associated with the frame structure; and second adjusting means arranged to allow adjustment of the support arm prior to said spreading; wherein adjustment by said first adjusting means adjusts the relative distance between the first and second arms as well as the relative height between the first and second retractor blades.

Clearly Bugge et al. fails to disclose or suggest each and every feature of claim 33. Further, none of the art of record provides any teachings which would have made it obvious to modify Bugge to meet all of the recitations of claim 33.

Claim 34 depends from claim 33, and further recites that the support arm comprises a pad arm having a sternal pad at a distal end thereof. Clearly none of the art discloses or suggests such a pad arm with sternal pad.

Claim 35 depends from claim 33, and recites that the first arm is rotatably and translationally movable with respect to the frame, and wherein adjustment by the first adjustment means comprises driving of the first arm by the adjusting means to increase the relative distance between the first and second arms, thereby also rotating the first arm with respect to the frame, thereby lifting the first retractor blade relative to the second retractor blade. None of the art of record discloses or suggests such first adjustment means.

Conclusion

Applicants submit that all of the claims are in condition for allowance, which action is requested. If the Examiner finds that a telephone conference would expedite the prosecution of this application, please telephone the undersigned at the number provided.

The Commissioner is hereby authorized to charge any underpayment of fees associated with this communication, including any necessary fees for extensions of time, or credit any overpayment to Deposit Account No. 50-2653, order number GUID-006CON6.

Respectfully submitted,

LAW OFFICE OF ALAN W. CANNON

Date: 11/2/04

By: _____
Alan W. Cannon
Registration No. 34,977

LAW OFFICE OF ALAN W. CANNON
834 South Wolfe Road
Sunnyvale, CA 94086
Telephone: (408) 736-3554
Facsimile: (408) 736-3564